



MARSHALL STAR

Serving the Marshall Space Flight Center Community

May 20, 2010

'Space exploration is the work of generations'

Lightfoot highlights Marshall's accomplishments, presents contractor awards at Center Director's Breakfast

By Megan Norris Davidson

Marshall Space Flight Center Director Robert Lightfoot hailed the center's 50 years of accomplishments and recognized Marshall's many industry partners at the 2010 Center Director's Breakfast on May 11.

"As you know, this year is a milestone because it's Marshall's 50th anniversary," Lightfoot told the 300 community leaders, elected officials and industry partners attending the annual event at the Westin Hotel in Huntsville. "Our theme this year is 'Space Exploration: The Work of Generations.' Space exploration is the work of generations – generations of space transportation and propulsion; generations of technological innovation; generations of living and working in space; generations



Marshall Center Director Robert Lightfoot addresses the audience at the annual Center Director's Breakfast.

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Space shuttle Atlantis lifts off!

Space shuttle Atlantis and six astronauts launched from NASA's Kennedy Space Center, Fla., May 14 on one of the final space shuttle missions. Atlantis docked with the International Space Station on May 16 to deliver cargo, critical spare parts and a Russian laboratory.

During the 12-day STS-132 mission, astronauts will perform three spacewalks. Atlantis' first landing opportunity is May 26 at Kennedy. For more information about the STS-132 mission, visit http://www.nasa.gov/mission_pages/shuttle/main/index.html.



Students check for ticks in NASA study

By Janet Anderson

Using state-of-the-art NASA satellite information, about a dozen students from the University of Alabama at Birmingham and Jacksonville State University in Jacksonville, Ala., are busy checking state forests for ticks that may carry Lyme disease.

The students, participating in a NASA program called DEVELOP, have spent three school terms looking

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Andrew Keys appointed Marshall chief technologist

The Office of Management and Budget, and the Office Space and Technology Policy recently approved the NASA Technology Integration Governance Policy which establishes an Office of the Chief Technologist at NASA Headquarters. Dr. Bobby Braun, NASA's new chief technologist, has requested that each NASA center appoint a center chief technologist who will report directly to center management.

The Marshall Space Flight Center has appointed Dr. Andrew S. Keys as its center chief technologist. Keys' responsibilities were derived from the set of responsibilities charged to the Office of the Chief Technologist by the administrator and include the following:

- Reporting to center management and serving as the principal advisor to center leadership on matters concerning centerwide technology development and leverage.
- Communicating center technology capabilities through representation on the Center Technology Council.
- Serving as the center's point of contact for the NASA Center Innovation Fund, responsible for reporting and programmatic management of the innovation fund at the center level.
- Serving as the center's focal point for Space Technology Research Fellowships.
- Leading technology transfer, the Small Business Innovation Research/Small Business Technology Transfer, and commercialization opportunities across the center, including solicitation, evaluation and selection.
- Serving as the center's change agent, particularly regarding the work force's capacity to innovate.
- Documenting, demonstrating and communicating the societal impact of the center's technology accomplishments.

Additionally, in FY11 the Agency's Innovative Partnerships Program will be absorbed into the Office of the Chief Technologist. Keys will be responsible for the existing functions currently funded by the partnerships program.

Keys possesses the technical depth and breadth required for this important assignment. He began his career at the Marshall Center in 1991 as lead engineer of the Command Subsystem Services development team in the Mission Operations Laboratory. During this time, he also participated as a safety diver in Marshall's now-decommissioned Neutral Buoyancy Simulator.

From 1996 to 2004, Keys served as an optical physicist in Marshall's optics branch, where his research focused primarily on the development of diffractive optics, phase modulation optics and beam steering arrays for use in optical communication applications. From 2004 to 2005, he served on a detail assignment to Headquarters,

See Keys on page 7

John Honeycutt named External Tank Project manager

John Honeycutt has been appointed to a one-year, limited term Senior Executive Service position as manager of the External Tank Project in the Shuttle Propulsion Office at the Marshall Space Flight Center.

He succeeds John Chapman, who retired April 30. As manager, Honeycutt will be responsible for leading the office and delivering external tanks to Kennedy Space Center, Fla., in support of the Space Shuttle Program.

Honeycutt has served in a wide variety of leadership roles at NASA and in the aerospace community for 20 years. He began his aerospace career in industry as a space shuttle main propulsion systems engineer for Rockwell International in March 1990 before transitioning to Boeing North American Inc. in 1996, both in Huntsville, where he served as a test conduct engineer for the International Space Station. He joined NASA in July 1999 and shortly thereafter became a team leader in Marshall's Vehicle Subsystem Engineering Department.

Following the Columbia accident, Honeycutt served as the NASA lead for the external tank Interfaces Fault Tree during the Columbia accident investigation. During Return-

to-Flight Phase One, he led the external tank Liquid Oxygen Feed Line Bellows redesign effort. Beginning in September 2005, he was selected as the test and certification team lead for the Space Shuttle External Tank Project during Return-to-Flight Phase Two before being named deputy manager of the project in 2006.

Honeycutt has broadened his leadership perspective by participating in several leadership activities including Marshall's Leadership Development Series, Office of Personnel Management's Leadership Assessment Program, and NASA's Academy of Program/Project and Engineering Leadership. He received a Bachelor of Science in mechanical engineering from the University of Alabama in Huntsville in 1990. For Honeycutt's service to the space program, he has received numerous awards, including a Silver Snoopy Award, a Space Flight Awareness Award, a Center Director's Commendation and numerous group achievement awards.



John Honeycutt

Teresa Vanhooser reassigned to manager of Ares Projects; Danny Davis reassigned to manager of Vehicle Integration

Teresa Vanhooser is formally reassigned to the previously vacant position of manager of Ares Projects at the Marshall Space Flight Center. Vanhooser has served as acting manager of the office since October 2009.

Additionally, Danny Davis is formally reassigned to the position of manager of the Vehicle Integration office in Ares Projects. Davis, formerly manager of the Upper Stage office, has served as acting manager of the integration office since July 2009.



Teresa Vanhooser



Danny Davis

Breakfast *Continued from page 1*

of scientific discovery; generations of partnerships and collaboration; and generations of education and inspiration.

"You're looking at the generations who lifted America into space," he added. "We appreciate what you've done."

Lightfoot presented an overview of Marshall's accomplishments in the past year, which included being part of five successful space shuttle missions; the launch of Ares I-X and Pad Abort 1 flight test; and continued support of the International Space Station. And he spoke of the center's future projects, and the upcoming transition after the retirement of the Space Shuttle Program.

"We have challenges ahead of us, there's no question about it," he said. "But one thing I am absolutely certain about is our people, your people. They'll perform, and they'll do whatever we ask them to do."

"Another thing that gives me tremendous confidence is our relationship with this community and with our industry partners. Since this place was founded 50 years ago, I think we've all understood that our destinies were wrapped together, and it's made it mutually beneficial for us to work together."

"And I promise you this," he added. "For 50 years, Marshall has been an important part of this community – and Marshall will be an important part for the next 50 years. No matter what direction we go, the capabilities that you represent and that your folks represent will be needed to take this country and this nation beyond low Earth orbit. Marshall will be right in the middle of that. I promise you. I'm confident about it. Your teams will be the ones to help us get there."

At the event, Lightfoot presented three Marshall Space Flight Center contractors – ATK Launch Systems of Magna, Utah; Jacobs Engineering Science and Technical Services Group of Huntsville; and Qualis Corp. of Huntsville – with 2009 Contractor Excellence Awards for significant contributions to the center's mission.

He also recognized the Huntsville Center for Technology

for its educational partnership with the Marshall Center. The school also was honored for its critical role in providing innovative and engaging programs that foster creativity and critical thinking to enhance and enrich the education of students in science, technology and mathematics.

For the Contractor Excellence Awards, eligible contractor companies were evaluated on the basis of seven criteria: contract technical performance; schedule and cost performance; leadership and quality improvements; customer satisfaction; innovation; and a category that included safety, diversity and outreach.

ATK Launch Systems was honored in the "Large Business – Product" category. ATK provides the space shuttle's reusable solid rocket motors and booster separation motors. It also developed the first stage for Ares I-X, which had a successful flight test in October 2009, and will deliver the launch abort system motor for the Orion crew capsule.

Jacobs Engineering Science and Technical Services Group was honored in the "Large Business – Service" category. The company provides engineering, scientific, technical and project support services to the Marshall Center for space launch systems, space station, space optics fabrication, spacecraft testing, project offices and exploration systems support.

Qualis Corp. received the "Small Business – Service" category award. The woman-owned company provides a broad range of engineering, scientific, technical and project support services to Marshall projects and activities.

Recipients of the Marshall Center's Contractor Excellence Award may become nominees for NASA's George M. Low Award. Named for the former NASA deputy administrator who served from 1969 to 1976, the Low Award is the agency's oldest and most prestigious award for quality and performance in the aerospace industry.

Davidson, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Thirty-seven honored with Space Flight Awareness awards

Thirty-seven Marshall Space Flight Center team members received Space Flight Awareness awards May 12 for their outstanding contributions to the space program. They participated in a number of events planned in their honor at the Kennedy Space Center, Fla., on May 13-14, including meeting with NASA's executive management and astronauts, and touring the center.

During their visit, the honorees watched the launch of space shuttle Atlantis' last scheduled mission, STS-132, on May 14 to the International Space Station. Two flights remain before the shuttles are retired at the end of the year: Discovery is targeted to launch in September on the STS-133 mission; and shuttle Endeavour is targeted to launch in November on the final mission to the space station.



Bryan Barley
Engineering Directorate



Gary Bean
Dynetics Inc.



Philip Benefield
Shuttle Propulsion Office



Jacoby Berry
Jacobs



Icle Blankenship
Engineering Directorate



Durlean Bradford
Will Technology



Thomas Byrd
Ares Projects



Rosalind Cylar
Office of the Chief Counsel



Rodney Dominique
MAF Integration & Operations



Pierce Ennis
ePro



Walter Franklin
Office of the Chief Information Officer



Joan Funk
Ares Projects



Shawn Gardner
Digital Fusion Inc.



Roger Hayden
Unites



Thad Henry
Science & Mission Systems Office

See Space Flight Awareness on page 5



Kathy Huffman-Graham
Colsa Corp.



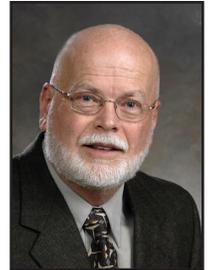
Paul Julino
Jacobs



William Kauffman
Engineering Directorate



Lizette Kummer
Office of Procurement



Kenneth McGee
Bastion



Karen McTaggart-Aggen
Engineering Directorate



John Mulqueen
Engineering Directorate



Benjamin Murphy
Teledyne Brown Engineering



William Nabors
Office of Center Operations



Mahmoud Naderi
Office of Strategic Analysis & Communications



Russel (Rusty) Parks
Engineering Directorate



Patricia Patterson
Engineering Directorate



Darren Reed
Engineering Directorate



Ryan Rudewick
MAF Integration & Operations



Twila Schneider
Schafer Corp.



Alisa Shivers
Shuttle Propulsion Office



Eric Stack
MAF Integration & Operations



Jennifer Stevens
Shuttle Propulsion Office



Kirk Teitge
Teledyne Brown Engineering



Paige Vaughn
Science & Mission Systems Office



Angie Williams
Science & Mission Systems Office



Rick Williams
Ares Projects

at habitats favorable for the proliferation of the blood-sucking arachnids.

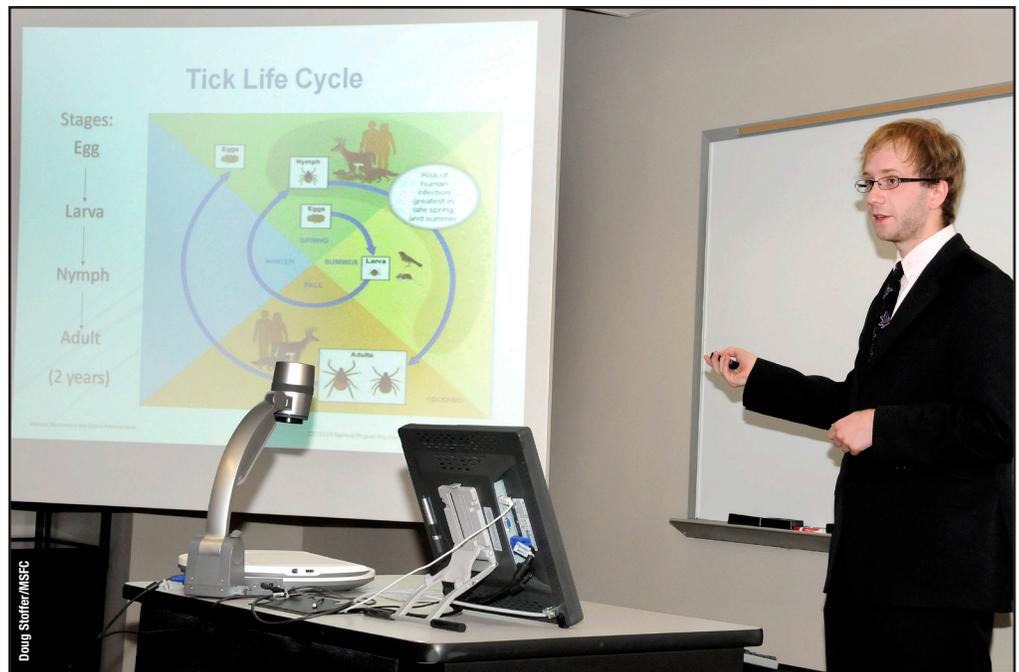
DEVELOP is a mentorship and training program sponsored by the Applied Sciences Program in NASA's Earth Science Division of the Science Mission Directorate in Washington. DEVELOP engages students in scientific fieldwork and lab study, and teaches them how to analyze research results and share them with scientific and public communities.

The students deliver research results, measurements and predictions that address local policy and environmental concerns, and develop professional-caliber products to aid community leaders and local and state governments with decision making. In the process, the students gain real-world research experience – and the capability to contribute immediately to the science community.

Dr. Jeffrey Luvall, a senior research scientist at the Marshall Space Flight Center, mentors students in the DEVELOP program. "NASA is committed to inspiring young people in science, technology, engineering and math," said Luvall. "The DEVELOP program offers a dual benefit – encouraging students to pursue careers in technical fields, and helping communities and states through expanded use of NASA satellite information."

During the summer of 2009 through spring 2010 sessions, students chose to work with NASA's satellite-based, remote-sensing technology, and geographic information systems software to focus on research into Lyme disease. The disease can become a serious, chronic illness in humans when undiagnosed and untreated.

NASA's Advanced Space borne Thermal Emission and Reflection Radiometer sensor was utilized along with the U.S. Geological Survey-partnered Landsat, and digital Globe's Quickbird satellite. Students used the satellite imagery to analyze soil moisture and vegetation at 12 locations in the Talladega National Forest in north-central Alabama, creating detailed digital maps and images showing conditions on the ground that could support habitats for carriers of Lyme disease: blacklegged ticks, also known as deer ticks. Important hosts for these ticks include white-tailed deer and the white-footed mouse. Results of their satellite imagery analysis showed areas of dense vegetation



Nathan Renneboog, a University of Alabama at Birmingham student team lead for the DEVELOP program, discusses use of NASA satellite information to study Lyme disease in Alabama.

overlapped with high soil moisture – likely tick habitats.

As the final element of their DEVELOP program work, participating students are establishing venues to directly educate the public about Lyme disease. This summer, they will work with Girl Scout troops and camps around northern Alabama, providing scouts and adult supervisors with information about tick-borne diseases and prevention methods. Additionally, student researchers attend conferences to convey what they have learned, increasing awareness not just of the serious risk of Lyme disease exposure, but also of the DEVELOP program itself. Their outreach effort helps NASA to recruit new groups of potential applicants and explore future research topics and collaborations.

The DEVELOP program, led by NASA's Langley Research Center in Hampton, Va., is active at five NASA facilities: the Marshall Center; Ames Research Center in Moffett Field, Calif.; Goddard Space Flight Center in Greenbelt, Md.; Stennis Space Center near Bay St. Louis, Miss.; and the Jet Propulsion Laboratory in Pasadena, Calif. Internship opportunities with the program are available during the spring, summer and fall. High school, undergraduate and graduate students with strong interests in science, technology and government policymaking are encouraged to apply.

For more information about DEVELOP, visit <http://develop.larc.nasa.gov>.

Anderson is a public affairs officer in the Office of Strategic Analysis & Communications.

where he participated in the formulation of the Exploration Systems Research and Technology program, the precursor to today's Exploration Technology Development Program.

During the summer of 2005, Keys had the opportunity to serve the International Space Station Program as a systems engineer in the Moscow Technical Liaison Office in Moscow, Russia. From 2005 to 2007, he worked within the In-Space Propulsion Technology Program office and served as the project manager of the instrumented aeroshell system of the proposed Space Technology 9 Aerocapture mission.

Since July 2009, Keys has served as team lead of the Exploration Technology and Development team within Marshall's Science & Mission Systems Directorate. In this capacity, he is responsible for working with the wide variety of technologies being developed by Marshall in support of the Constellation Program elements and other future NASA flight projects. Since 2007, Keys also has served as project manager of the Advanced Avionics and Processor Systems technology development project within the Exploration Technology Development Program. This project is responsible

for developing advanced electronics, processors and memories capable of enduring the extreme radiation and thermal environments encountered during extended deep space missions.

Keys received his doctorate in electrical engineering in 2002 from the University of Alabama in Huntsville. He received his master's and bachelor's degrees in electrical engineering from Auburn University in Auburn, Ala., in 1990 and 1988, respectively. Keys has published multiple research and conference papers on the topics of optics, electronics and technology development, and holds two patents.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, May 27, is 4:30 p.m. Thursday, May 20.

Miscellaneous

Ballerina bedroom furniture and bedding, children's books and movies. 539-4449 leave message

Felt road bicycle, 52-cm Shimano, 105 components, \$475. 656-2951

Tobi handheld steamer, removes wrinkles from clothing and drapes, \$30. 931-425-0163

Bentwood rocker, wood, cane-weaved seat and back, \$55. 617-1822

1978 FJ40, \$8,500; Thule bike roof rack, \$250; Garmin legend, \$50. 658-8241

Chandelier, Cipriani bowl, golden nickel, 6-plus-3 lights, 33"W x 24"H, picture available, \$100. 777-1810

Solid wood student desk, overhead bookshelves, matching dresser, \$150. 724-1467

Ipod Nano, blue, \$60. 529-2725

Metal stakes, 1-inch angle, 4 feet in length, \$1 each. 895-9520

Phalzgraff Yorktowne stoneware, 10 five-piece settings, miscellaneous pieces, baking dishes, platters, 78 pieces.

653-5799

Xbox 360, 20GB, lots of games, four controllers, four Rock Band instruments, \$400. 205-394-1307

Computer desk, \$25; bookcase, \$25; two matching wall units, \$150. 653-4835

Canon DSLR D30, manual, box, \$390. 325-6000

Brown traditional Broyhill sofa, \$375. 783-4866

"Jessica McClintock Home - The Heirloom Collection" twin sleigh bed, four-drawer dresser, desk, chair. 651-2234

4-year-old female Siberian Husky, sky blue eyes, red and cream colored coat. 829-0776

TIVO recording box, lifetime service included in cost of box, TIVO wireless receiver. 539-3284

Frigidaire washer, super capacity, Kitchen Aid dryer, electric, seven cycles, four temperatures, \$125 each. 345-8012

Cherry entertainment center, 5'X6' with TV opening of 31" H X 36.5" W, \$85. 527-3486

Image space saver programmable treadmill, \$300. 468-2718

Playstation 3 game, Little BIG Planet, Game of the Year edition, rated E, \$35. 828-1234

Bedroom suites, entertainment center, washer/dryer, refrigerator, table/chairs, reclining loveseats, more. 617-1809

Treadmill, \$250; elliptical, \$500; dumbbell set and stand, \$400; rowing machine, \$500, all \$1,500. 679-0188

Day bed, wood frame, navy blue cover, \$200. 882-3983

Farberware stainless coffee urn, automatic, 12 to 36 cups, \$70. 837-6776

John Deere front reel mower, seven blades, high-speed reel, Kawasaki air cooled, \$375. 253-208-2926 or 353-0370

Vehicles

2008 Pontiac G6, four door, automatic, white exterior, tan interior, warranty, 31k miles, \$12,660. 425-8467

2006 Toyota Tundra SR5, black, double cab, tan cloth interior, bed cover, 51k miles, \$17,500. 837-8389

2004 Dodge Neon SXT, full power, alloy wheels, power/tilt steering, cruise, 6-disc CD, \$4,995. 520-5163

2002 Yamaha V-Star 650 Custom, 2,500 miles, \$3,000 obo. 265-325-9833

2001 Harley Davidson FXDXT, dark red/black, stage kit, pipes, alarm, \$10,000. 464-9871

2001 Honda Odyssey EX 4D minivan, tow package, power rear doors, 165k miles, \$5,000. 724-1362

2000 Lincoln LS, pewter, V8, leather interior, power, 145k miles. 457-9709

1998 GMC white LWB pickup, 178k miles, \$5,000. 468-9377

1998 18-foot Stingray RS180 Bowrider, new 140HP, bimini covers, custom trailer, extras, \$9,500. 640-6427

1995 Yukon Suburban, white/burgundy, Loaded, Choo Choo package, 112k miles, \$4,500 obo. 682-2550

1989 Pontiac Grand Prix SE, motor runs, needs transmission work, \$600 obo. 656-3333

Free

Male Guinea Pig, cage, bedding, food, accessories. 533-0665

Walnut tree, you cut and haul away. 714-1357

Two female tabby cats, 3 and 6 years old, spayed, all shots, food, accessories. 642-6140

Wanted

Houses/offices to clean, available evenings and weekends. 777-8595 leave message

In-home summer reading/comprehension tutor, K-12, \$10/hour. 604-7424

Monkey grass, variegated or non-variegated, free if possible, will dig up if needed. 200-2273

Used bicycle, prefer aluminum frame. 881-9426

Marshall celebrates Asian Pacific American Heritage Month

By Megan Norris Davidson

In celebration of Asian Pacific American Heritage Month, the Marshall Space Flight Center will host a lunch and learn at 11:30 a.m. May 26 in Building 4200, Room P-110. All Marshall team members are invited.

Guest speaker will be Dr. Ravindra Behari Lal, emeritus professor of physics at Alabama A&M University in Huntsville. Lal has a long history with NASA and the Marshall Center.

After earning his doctorate in solid state physics from Agra University in India in 1963, Lal completed his postdoctoral work at Marshall as a resident postdoctoral associate of the National Academy of the Sciences/National Research Council. He pioneered work on the effects of radiation on thermal control coatings for Apollo and other spacecrafts.

Lal was chosen by NASA in 1978 to serve as a principal investigator for a space shuttle experiment that flew with the maiden flight of the Spacelab-3 mission in 1985. The success of that project gave him an opportunity to fly another experiment in 1992 on the First International Microgravity Laboratory.

He also was principal investigator for a project under NASA's Commercialization of Space program for seven years.

In 2006, Lal served a one-year term in Marshall's Exploration Science and Technology Division as part of the NASA Administrator's Fellowship Program. Administered by the United Negro College Fund Special Programs Corporation, it seeks to increase the capabilities of institutions serving minorities to participate in NASA's research and development programs.

Marshall also will participate in Team Redstone's Asian Pacific American Heritage Month program at 1 p.m. May 25 at Bob Jones Auditorium in the Sparkman Center, Building 5304. The speaker will be Da Chen, a New York Times bestselling author. Team Redstone includes Marshall and U.S. Army organizations on Redstone Arsenal.

Each May, Marshall, partnering with Redstone, recognizes the contributions of people of Asian and Pacific Islander heritage benefiting NASA and the nation. The annual recognition month formally began in 1990 and became U.S. law two years later.

For more information about Asian Pacific American Heritage Month activities, call Willie Love at 544-0088.

Davidson, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.



Ravindra Behari Lal

Learn about Marshall's history on interactive timeline

Text, photos and videos about the history of the Marshall Space Flight Center are featured on a new online interactive timeline on the center's 50th anniversary website at http://history.msfc.nasa.gov/50th_anniversary/timeline.pdf.

"The timeline starts with the events associated with the opening

of Marshall on July 1, 1960," said Marshall Historian Mike Wright. "It features at least one significant event for every year up until the present."

The timeline is a work in progress, he said. "We will be adding new videos and photos throughout the year and beyond."

Developers of the timeline were Marshall graphic artist Mark Hogan

and Web development specialist Jeannine Norman, both of Dynetics Inc., supporting Marshall's Office of the Chief Information Officer, and History Office staffers Molly Porter of Deltha-Critique and Roena Love, both supporting the Office of Strategic Analysis & Communications.

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